N49RF ERROR SUMMARY
ENRR #21 PHNL - PHNL
8 March 2016

Flight ID: 20160308N1

Sensor or system	Number or Name
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZfilterI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.1
Flight Directory	acdata/2016/MET/20160308N1

Local Met Data:	Takeoff - 2042Z	Landing – 0418Z
Aircraft Static Pressure	1016.2 mb	1014.8 mb
Tower Pressure (corrected)	1018.2 mb	1017.8 mb

Notes:
Takeoff / Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

TDM.1 and TDM.2 are not rated for use under -50 deg C, so neither can be considered reliable for dew points colder than -50C. While normally reliable at lower altitudes, both dew point sensors displayed anomalously low values and abnormal oscillations during takeoff climb and descent to landing. Therefore, all flight level humidity data for this mission should be considered suspect.

AltGPS.3 was used as the source for absolute altitude. AltRa.1 displayed an interval of intermittent missing data points (NANs) during climb after takeoff around 2101z and anomalous down-spiking periodically at mission cruise (approx 2107z – 2335z) but was not used for any derived meteorological parameters.

Other than the dew point sensors, there were no issues noted in the measured parameters used to calculate meteorological and navigational parameters.

The sonde at drop point #4 (2211z) initially appeared to be a fast fall so a backup was launched. The chute for the first sonde later inflated normally at about 200 mb with good data below. Both sondes are counted as "good" but only one WMO TEMPDROP message (using the backup's data) was compiled and transmitted for drop point #4.

Expendable Type	Number deployed	Number good	Number of messages transmitted
GPS dropwindsonde	30	30	29

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